ECONOMIC RESEARCH FORUM
منتدى البحوث الاقتصادية
2018

working paper series

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Working Paper No. 1197

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April 2018

We gratefully acknowledge the funding provided by Economic Research Forum for this project. AliCan Gozcu, Alper Guruz, Esref Ugur Celik, Melis Eskici, and Mustaca Can Kucuker provided excellent research assistance. We want to thank seminar participants SSE for their comments and suggestions, especially Roza Khaban. All errors are ours.

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First published in 2018 by
The Economic Research Forum (ERF)
21 Al-Sad Al-Aaly Street
Dokki, Giza
Egypt
www.erf.org.eg

Abstract

The labor market consequences of ethnic conflict between Kurds and Turks in Turkey are not examined in detail mainly due to data restrictions. In this paper, we try to fill this gap in the literature by providing both survey and correspondence audit evidence of ethnic discrimination in the Turkish labor market against Kurdish minority. First, we show that Kurds have lower educational attainment, higher unemployment rate, and longer unemployment spells. Then, we conduct a correspondence audit and find that the Kurdish applicants receive fewer callbacks than the Turkish applicants although their resumes get similar attention at the earlier stages. When we consider the gender dimension, we see no differential treatment of Kurdish males and Turkish males, but for each callback a Kurdish woman receives, a Turkish woman receives 2.5 callbacks. Hence, we conclude that differential treatment by ethnicity might be a feature of the Turkish labor market, especially for females.

JEL Classifications: J71, C93, J15

Keywords: labor market discrimination; correspondence audit; ethnicity.

ملخص

لا يتم بحث نتائج سوق العمل الناجمة عن الصراع العرقي بين الأكراد والأتراك في تركيا بالتفصيل أساسا بسبب القيود المفروضة على البيانات. في هذه الورقة، نحاول سد هذه الثغرة في الأدبيات من خلال تقديم أدلة تدقيق مسوح ومراسلات على التمييز العرقي ضد الأقلية الكردية في سوق العمل التركي. أولاً، نظهر أن المستوى التعليمي لدى الأكراد أقل، ومعدل البطالة أعلى، وفترات البطالة أطول. وبمراجعة المراسلات نجد أن المتقدمين الأكراد يتلقون عددًا أقل من طلبات الحضور مقارنة بمقدمي الطلبات الأتراك على الرغم من أن سيرهم الذاتية تلقى اهتمامًا مماثلًا في المراحل السابقة. عندما ننظر إلى البعد الإنساني، لا نرى أي معاملة تفضيلية للذكور الكرديين والرجال الأتراك، ولكن مقابل كل اتصال تستقبله أمراه كردية، تتلقى امرأة تركية 2.5 اتصال. ومن ثم، نستنتج أن المعاملة التفضيلية العرقية قد تكون سمة من سمات سوق العمل التركي، خاصة بالنسبة للإناث.

1. Introduction

Turkey has been experiencing a massive ethnic conflict between Turks and the biggest ethnic minority Kurds, which is fueled by the establishment of the Kurdistan Workers' Party (PKK) back in the 80s. Such an ethnic conflict has potential to affect the life of minority population in many ways, including but not limited to labor markets. However, as the official surveys do not collect data on ethnicity in Turkey, it is difficult to analyze whether there exist differences between Turks and Kurds regarding labor market outcomes - such as unemployment rates, the longevity of unemployment spells, and wages - identify a possible ethnicity-based labor market discrimination.

In the literature, discrimination is mostly analyzed in terms of wage discrimination, using labor market data and employing decomposition analysis as Oaxaca (1973) pioneered[3]. However, as explained in Bertrand and Duflo (2016), there exist serious limitations of employing regression-based decomposition analysis in quantifying discrimination. For example, diverse ethnic groups might as well have diverse educational attainments, which in turn determine their diverse labor market outcomes. Regression analysis deals with that type of problem by simply controlling for education in the regression. However, in decomposition analysis, what cannot be controlled or explained is called discrimination, and we might not be able to control for every confounding effect. On the other hand, experimental designs such as audit and correspondence audit studies may repress these limitations and produce more liable estimates of the labor market discrimination. Therefore, there is a growing literature of correspondence studies examining the hiring stage discrimination, particularly in terms of ethnicity and race.

In this paper, we will follow a middle ground and first provide survey evidence on the labor market outcomes of the Kurdish population in comparison to the Turkish population via one of the very few surveys covering labor market outcomes and ethnicity. We find that Kurdish people have lower education levels compare to Turkish people in Turkey. That might explain part of the difference in their labor market outcomes, which are characterized by a higher rate of unemployment and longer unemployment spells. However, when we group sub-populations into education levels in order to mimic educational difference between Turks and Kurds, we saw that differences in labor market outcomes survived among education groups. We also showed that while a higher level of education is correlated with a higher employment probability for the Turkish population, this is not the case for the Kurdish population. That means Kurds might not be benefiting from education equally even when they get a higher education. This, in part, explains why educational attainment is lower among Kurdish population. Since all these points stated here are suggestive of ethnic discrimination in the Turkish labor market we further investigate this suggestive evidence via a correspondence audit study.

In this respect, we first created fictional resumes with similar qualities and assigned randomly selected Turkish and Kurdish names to those resumes. Moreover, we strengthen the signal of being Kurdish by choosing birthplaces from heavily Kurdish populated cities for the Kurdish applicants, mainly from South Eastern Turkey. With these resumes, we applied for vacancies in a commonly used online job search portal in Turkey. We focused on entry-level jobs, which do not require experience or references from the previous employers. Moreover, we only applied for vacancies in İstanbul, which is the biggest market in Turkey. After the applications, we keep track of three

[3] See Altonji and Blank (1999) for a discussion of these studies.

separate hiring outcomes. The first one is the listing of resumes. In this measure, we tracked the automated messages sent out by the online job application portal. We get these messages if the employer lists our fictitious resumes among other candidates after filtering the applications with some criteria, such as education, experience or language skills. The second outcome is the status of our fictitious resumes on the job portal. We tracked whether a potential employer clicks and opens our fictitious candidate's resume via another automated message sent out by the job application portal. This is a stronger signal of interest than the aforementioned listing measure since it requires a little more effort from the employer and it is candidate specific. It is important to note that scanning a resume is the first step of employer interest in our fictitious candidates and might or might not be followed by a callback. Finally, the final measure is the standard measure used in the literature, namely callbacks. We keep a record of interview request by the employer via phone and call it the callback.

Our contribution to literature is multifold. First, we are among the first papers examining the ethnic discrimination in Turkey. Also, we are one of the first papers in the literature examining ethnic discrimination in a non-immigrant related perspective. Moreover, we are quantifying two additional measures of employer interest, namely listing rate and screening rate on top of callback rates. Since callback rates are low and listing and screening rates might reach up to 70 percent for some applicants, identifying listing and screening rates on top of the callback rates is a major improvement over the existing studies. Last but not the least, this is one of the few correspondence audit studies carried in a developing market, and the first one is in Turkey to the best of our knowledge.

We applied for 500 job openings in a five months period with four resumes per vacancy. We find that the callback rates (calculated as the number of callbacks from the potential employers over the number of applications) are higher for Turkish sounding applicants compare Kurdish sounding applicants. When we divide the sample into males and females, we find that the difference is due to Kurdish females. When we compare resume screening rates and resume listing rates, we find similar ratios for all ethnic groups and genders. That means the prospective employers are listing and accessing the resumes belonging the minority group however they do not callback the Kurdish females for interviews as much as they call the Turkish females. Hence, we conclude that differential treatment by ethnicity might be a feature of the Turkish labor market, albeit at a limited degree.

The rest of the paper is organized as follows. First, we will lay out the related literature in the following section. Then, we explain our experimental design in depth and clarify how we keep track of the employer response in Chapter 3. In the fourth chapter, we will talk briefly about survey data we employed in calculating labor the market outcomes of the Kurdish population. In the fifth chapter, we present our findings and possible interpretations of these findings. Finally, we conclude in the sixth chapter.

2. Literature Review

This paper is closely linked to two strands of literature. The first one is the labor market correspondence audits conducted on race and ethnicity. Among these, most of the ethnicity studies compare the immigrants and non-immigrants in order to analyze the discrimination at the hiring stage. The second strand of the discrimination literature examines the ethnic discrimination in the

Turkish labor market. However, the studies in this area are limited to descriptive studies and wage decomposition due to data constraints.

Correspondence audits investigate the hiring stage discrimination for different minorities in different countries, depending on the migrant and minority concentration. For example, Carlsson and Rooth (2007) sent matched paired of applications for positions of construction workers, sales assistants, IT professionals, high school teachers, restaurant workers, drivers, accountants, nurses, cleaners and teachers in different branches to study the discrimination against Arabic sounding names in Sweden. They found that 29 percent of employers are discriminating against the males with Arabic sounding names and discrimination is more common in the lower level occupations in the Swedish labor market. Hence, we can say that better education helps in reducing ethnic discrimination in Sweden.

In a similar framework, Drydakis and Vlassis (2010) investigate the discrimination against low-skilled male Albanians in the Greek labor market. According to their results, Albanian applicants' probability of receiving an interview is lower than that of Greeks by 21.4 percentage points. Similarly, in a study for Germany, Kaas and Manger (2011) send two similar applications, one with a Turkish-sounding and one with a German-sounding name to each of 528 advertisements for student internships. While the callback probability for German names is 14 percent higher for all the firms, the difference raises to 24 percent when the sample is restricted to small firms. Clearly, both studies focus on immigrants, unlike our study.

Another discrimination study that focuses on the Turkish minority is carried out by Baert et al. (2013) in the Belgian labor market. They try to identify the degree of discrimination with respect to labor market tightness. According to their results "compared to natives, applicants with Turkish sounding names are equally invited to a job interview if they apply for occupations for which vacancies are difficult to fill, but they have to send twice as many applications for occupations for which labor market tightness is low". In our study, we also consider how the number of applicants affects the callback rates by using the size of the applicant pool reported by the online job portal as a measure of tightness. Unlike what they find, our findings suggest the discrimination against the Kurdish minority mainly stems from the jobs with small applicant pools.

In a study for Ireland, McGinnity and Lunn (2011) send a matched pair of resumes for Irish and minority applicants. They find that applicants with Irish names are over twice as likely to be called to an interview as candidates with African, Asian or German names and the discrimination rate does not vary among aforementioned minority groups.

The size of discrimination for the second generation of immigrants is studied in Midtbøen (2016). He sends pairs of equivalent resumes, one with a Pakistani name and one with a Norwegian name. They found that applicants with Norwegian names on average are 25 percent more likely to receive a call back for a job interview than applicants with Pakistani names. Moreover, the effect of ethnic background on the employment probability is larger among men than women and larger in the private sector than in the public sector. On the contrary to Midtbøen (2016), we find a lower effect for males than females in our study.

In a recent correspondence study, Arai et al. (2016) investigate how much work experience is needed to eliminate the disadvantage of having an Arabic name on job applications. An interesting

result of their study is that, contrary to what is often assumed about the interaction of gender and ethnicity, Arabic men face stronger discrimination in the Swedish labor market than Arabic women. This is again in contrast with our findings where we find higher discrimination against women.

As we mention above, ethnicity studies mainly investigate the discrimination between natives and immigrants. One exception is Maurer-Fazio (2012) study, which focuses on discrimination among the ethnicities that are not immigrants but the natives of China. She denoted the ethnicity with names that are either typically Han Chinese or distinctively Mongolian, Tibetan, and Uighur. She finds a significant difference in the callback rates by the ethnicity and these differences vary systematically across ethnic groups. Moreover, state-owned firms discriminate significantly less than privately-owned firms.

Ethnic identity-based discrimination is rarely studied in Turkey; incompleteness most probably is coming from the data unavailability. Turkish Statistical Institution cannot ask the ethnicity and religion of the respondents because of the legal prohibition. To the best of our knowledge, there are only two nationally representative datasets, which are collecting the ethnicity data in Turkey. The first one is the Social Change and Social Advancement Survey, which we use in this study. The data is coming from a field survey conducted in 2010 under the auspices of Yeditepe University. The second one is the Turkish Demographic and Health Survey, conducted by Hacettepe University. However, when the scope of the question is beyond these two datasets, researchers have to collect their data to analyze related subjects.

Lordoğlu and Aslan (2012) aim to underline the growing ethnic discrimination in the Turkish labor market. They conduct several interviews with people from different ethnic origins and labor market status (employed, unemployed, etc.), who are living in Southeast Anatolia and West Anatolia metropolises. They interview people who have been personally the victims of discrimination. Because of the limitations of the research design, it is not possible to determine the size of the discrimination, but the article contains detailed witnesses about the form of the ethnic discrimination in the Turkish labor market. Eight types of labor market discrimination have been identified in the interviews: no hiring, no promotion, firing, closing down (for the entrepreneurs or self-employed), mobbing, disqualification, relegation, overworking or deregistration.

Cilasun et al. (2014) investigate household income differences among Kurds and Turks in their study. They found a significant difference between two groups, but the difference between two groups diminishes if the household head is working.

Kayaoğlu (2014) examines socioeconomic impacts of the 15 years state of emergency in the Eastern part of Turkey using a DID methodology. Kayalıoğlu's results indicate that the state of emergency had a significant negative impact both on the labor force participation rate and the unemployment rate in the region. Kayhan (2015) aims to assess qualitatively the interpersonal relations between the Kurdish and the Syrian employees in the Turkish manufacturing sector using 186 focus group with 404 workers in ten cities. The results indicate that under stressed labor market conditions, external Syrian and internal Kurdish migration have significant impacts on the labor market and the relationship between main actors. They find that the ethnic disparity (even hostility as underlined by the researcher) is increasing among all ethnic groups (including Turks) in the manufacturing sector.

Dixon and Ergin (2010) ask two questions in their article: How do Turks view Kurds in Turkey and what factors explain these beliefs? Using nationally representative PEW survey, they analyze these questions, and their conclusion differentiate from the European-based research. According to them, nationalism and secularism consistently explain the beliefs about the Kurds rather than the group competition in Turkey. It means that the ideological and republican ideas are more important than the economic or group competition to construct anti-minority/anti-Kurdish motifs in Turkey.

All in all, this is the first study that investigates the hiring discrimination in Turkey. Also, our study is the first one that attempts to analyze labor market discrimination against the Kurdish minority in Turkey. Moreover, almost all correspondence studies measure ethnicity discrimination on the native-immigrant basis. The only exception is the aforementioned Maurer-Fazio (2012) study, which is conducted in China. Therefore, our study also contributes the literature by providing evidence about the discrimination against the ethnicity, which is native to the country of interest.

3. Experimental Design

In this study, we are employing a correspondence audit methodology. In a correspondence audit, seemingly similar fictional resumes are sent out to real job openings as pairs and the interview requests -or callbacks- from these job openings are compared between the paired fictitious applications. In these studies, the applicants differ only in one trait, which is the studied source of discrimination. In correspondence audits, it is possible to study gender, beauty, height/weight, religion, ethnicity, race, and sexual orientation discrimination among the others. For example, in a gender discrimination study, the researcher can signal the sex of the applicant by assigning commonly used male and female names to identical resumes. In a study of ethnic discrimination, birthplaces of the applicants can be used together with ethnic names if one of the ethnic group is located heavily in a specific geographic region. It is important to note that discrimination is defined with respect to a reference group in all discrimination studies and correspondence audits are no exception to that practice. For example, an average weighted person is the reference group when working on discrimination against overweight people. Similarly, males belonging to the major ethnic group constitute the reference group in gender and ethnicity studies.

The prime benefit of correspondence audits is the test subjects (firms in our set up) are not aware of they are tested. Thus, it is not possible for subjects to change their behavior accordingly. Hence, correspondence audits help to quantify the real magnitudes as they observed in the market. Moreover, by creating fictional resumes, the quality differences between reference and investigated applicants could be minimized. That might not be the case in survey data as we show in the following chapters. Finally, sending a small number of applications prevent distortion in the labor market. Meaning that the real magnitudes observed in the labor market could be matched in audit studies.

There are two alternatives to correspondence audits. First one is analyzing discrimination through survey data. As we mentioned before, identifying the magnitude and the source of discrimination may not be possible in survey data. For example, assume the researcher finds a difference between Kurds' and Turks' employment rates. The difference might depend on inequality of opportunity in education. Additionally, inequality of opportunity in the labor market during hiring, firing or promotion stages might be the cause of the same observation. However, in a correspondence audit

study, it is possible to focus on one of these channels and quantify the magnitude of discrimination correctly.

Another alternative is the direct audit studies where the fictitious applicants hold interviews with the prospective employers. In direct audits, trained individuals apply for vacancies and have interviews with the prospective employers, and finally, the job offers are counted. Besides being costly, slow and distortionary; direct audits might carry more signals than the assigned treats. The additional signal might be the personality of the person having the interview or the beliefs of trained applicants about their quality. Yet, correspondence audits block these channels and produce more reliable estimates.

On the other hand, correspondence audits have their limitations. Most important of all, it is not possible to quantify wage gap and employment discrimination via correspondence audits. Since it is not possible to get a job offer or a wage offer before finalizing the recruitment steps, it is also not possible to quantify discrimination in these steps. Moreover, it is almost impossible to apply for managerial positions in correspondence audits especially if the market for that profession is small and existing people are well-known. Any fictional resume will be detected immediately in such positions and markets, and there would be no point in carrying out correspondence audits in such markets.

Another major drawback of correspondence audits is reflecting more information than intended via fictional resumes. For example, a specific name or birthplace might signal a specific level of language ability to recruiters, which is an unobserved and unaccounted characteristic for the researcher. That means similar quality resumes might signal different abilities when they are sent by minority versus majority applicants. However, it is possible to mimic this kind of drawback as we will explain further in the following chapter.

All in all, the correspondence audits are useful tools for quantifying the labor market discrimination, albeit they are far from perfect. Hiring stage discrimination is an important source of labor market discrimination, and correspondence audits can help us understand how hiring discrimination works against different ethnicities in the labor market.

In our study, we first assign randomly selected names and surnames to fictional resumes and generate similar quality applicants. With these resumes, we apply to online job openings and count the callbacks, resume accesses, and resume screening from the prospective employers for each pair of applicants. The steps of experimental design can be summarized as follows:

1. Identity creation of fictitious applicants
2. Selection of resume characteristics
    (a) Ethnicity
    (b) Birthplace
    (c) Gender
    (d) High School and College
    (e) Address
3. Applications for chosen vacancies
4. Measuring Responses

Now, we will explain these steps in detail and try to explain what we did to mimic some of the drawbacks of correspondence audits.

3.1 Identity Creation of Fictitious Applicants

The names of the applicants are the main source of the variation among the resumes in correspondence audits. In order to identify the source of the discrimination correctly, names should reflect an affiliation with the group of interest but nothing more than that to potential recruiters. That means we need to signal Turkish or Kurdish ethnicity with applicant names and we should not deliver more information about the unobserved characteristics of the applicants.

To deliver the aforementioned promise, we designed a short survey for name selection. Before the survey, we gathered most common female and male names for both Turkish and Kurdish people. We also put Arab sounding names in the survey which are heavily used by both ethnicities. We did that to avoid those names in our resumes given they signal another affiliation, namely the religion besides the ethnicity. Since the Turkish ethnicity is the reference group in our study, we tried to identify neutral-sounding names for this group. Neutral names should not signal any ethnic or religious affiliation besides being Turk. In other words, those names can be used by the majority of the population without a reference group in mind. Some examples of those names can be Mehmet or Ayşe, which are quite popular names in Turkey and do not reflect an ethnic or religious group identity. The final set of names are the Kurdish names, which we collect online and are expected to be strongly identified with the Kurdish population in Turkey.

After collecting the names, we conduct a survey to identify Kurdish affiliated names. We distribute a list of names to random people and ask them to mark the names as they like by referring to religious, ethnic or gender identity of the name. Then, we eliminated religiously affiliated names from our dataset. We keep names if more than 50 percent of our survey respondents affiliate the name with the Kurdish or Turkish ethnicities and if there is no confusion about the affiliation among our survey respondents.

For the surnames, we have chosen some of the heavily used surnames in Turkey. That common surnames do not signal any geographical, ethnic or religious affiliation since they are commonly used by the different groups of the society. Another benefit of using commonly used surnames is it makes it harder for recruiters to search candidates online if they have such intentions. The list of these surnames can be found in the appendix. We did not differentiate between Kurdish and Turkish surnames given it is not common for Kurdish population to have distinct surnames.

In the end, we created 10 Turkish male, 10 Kurdish male, 10 Turkish female, and 10 Kurdish female identities for our fictitious resumes complete with a name and a surname. A list of identities can be found in Table 2 where we report some of our findings.

3.2 Resume Characteristics

There are three types of resume characteristics that we assigned to each fictitious resume. The first set of attributes is the fillers and they are required by the online job application portal. Smoking behavior, having a driver license or compulsory military service can be named as some examples. They have a limited information content for our purposes, and we assign the same choice to each resume.

The second set of characteristics is the signaling characteristics that we use to signal ethnicity of the applicant. We used names and birthplaces for this purpose. Names are chosen as explained above, and birthplaces are chosen to strength the ethnicity signal of the name. Hence, we assigned cities from South East Anatolia to our Kurdish applicants and cities from Western Turkey to Turkish (or neutral) applicants.

The final set of characteristics are chosen to minimize the unwanted information the name and the birth city might signal to potential recruiters. We carefully selected high schools, colleges, and currents addresses in a way to reflect similar backgrounds to recruiters. Although our Kurdish applicants were born in Eastern Turkey and carry Kurdish names, we assigned high schools from Istanbul and colleges from Western Turkey to all applicants in order to equalize their socio-economic background. All applicants were given a business major. All the colleges exhibit similar qualities, and a list of colleges can be found in the appendix. Moreover, we also assigned a similar quality neighborhood to each applicant in the address section of the resume following the warnings of Bertrand and Mullainathan (2004). Hence, the employers have no reason to expect different cultural background or different language abilities from our minority and majority applicants. In that way, we try to restrict the differential information content of our resumes to ethnicity by minimizing the difference between the life experience among our applicants.

3.3 Applying for Vacancies

First, we restricted our interest in Istanbul and entry-level jobs, which require high school or college degree. Although this seems a bit restrictive at first, Istanbul is the single largest job market in Turkey, and most of the advertisements require a high school or college degree.

We monitored one of the heavily used online job portals in Turkey at a daily frequency in order to select vacancies. We applied for all vacancies, which have similar requirements to quality of our fictitious resume pool. Here how we proceed in doing that. After listing available openings, which are published on the last day (last two days for the weekends since there was not much action during the weekends), we briefly read what the advertisement is looking for. If we found an opening suitable to our applicant pool, we sent four resumes in a random order and 2 hours interval, no application to a single vacancy being closer than 15 minutes to each other.

When we are done with the application process, prospective employers can observe our interest in their vacancy directly. First, they can observe limited information about the candidate (including name) in a list format together with all the other candidates interested in the position. Then, they can filter the resumes with desired qualities and restrict the applicant pool. If they want they can examine the resume by opening it, or they can get more information by calling the candidate. In the following section, we will explain how we used the job application portal's features to create the additional discrimination measures.

3.4 Measuring Responses

Callbacks are the sole measure of discrimination in the vast majority of correspondence audit literature. Callbacks are recorded as a binary variable, which takes the value of 1 if the employer contacts the fictitious applicant by phone with an interview request and 0 otherwise. This is mainly data driven since there exists no other way of monitoring employer's reactions. However, callbacks tend to be quite a few compare to the number of applications made by the researchers.

In this study, we produce two extra measures of employer response in addition to the callbacks. The first measure, namely callback is an active communication from the employer side and measured by recording the interview requests made by the phone. Hence, we monitored phone numbers provided in the resumes regularly and every time we got a call for an applicant we noted the call together with the company information. As we stated above, that is the standard way of measuring employer response in the literature.

The second and the third are passive communications from the employer perspective since they do not contact with the applicant or they do not exert additional effort to reach the applicant. Instead, the website that we are using for our applications monitors the employer activity and reports it to the applicants. The online job portal we used for this study allows job seekers to keep track of their application by informing them about the stages of the application. We can briefly explain this process as follows. Once the application is received by the company, the website notifies the applicant about the successful submission and delivery of the application. Then, when the company register applicant's interest by filtering and listing the application among other applicants, job portal update the application information with "Application has been seen". Finally, when the resumes are opened by the prospective employer a final update is made to the application status with "Resume has been seen". Hence, we can follow which of the applications are listed and which of the resumes are screened by the recruiters. That means we can create two additional discrimination measures from the application and resume access information.

From now on, we will call the first measure "listing", which takes the value of 1 if the application is filtered and listed by the employer. The second measure is called "screening", and it takes the value of 1 if applicant's resume is accessed by the employer and 0 otherwise.

These new measures have three main benefits. First, since the communication is automatic, the positive response rate is much higher than the traditional callback measure. Second, we are able to monitor the different stages of applications so that we can shed light on the employer behavior leading the callback stage. Last but not the least, we can identify at which stage of the hiring process the discriminatory behavior materialize.

With above measures, we can observe whether firms are interested in any of our applicant after seeing limited information about them, which differ only in names. In an ideal world where no discrimination exists, we expect no difference between the resume listing rates and resume screening rates between different ethnicities given the firms cannot observe different signals about applicants besides ethnicity.

4. Data

4.1 Survey of Social Change and Advancement

The first data set we are going to employ is called Social Change and Social Advancement Survey. The data is coming from a field survey conducted in 2010 under the auspices of Yeditepe University. The survey explores social change and migration in Turkey. It covers 1333 households and 5386 respondents where the sample was determined through a multistage stratified cluster sampling technique. At the last step of the sampling process, households were randomly selected by Turkish Statistical Institute (TURKSTAT). The survey is representative at the national level, and it is designed to be comparable to the main official labor force and budget surveys. Note that, it is not possible to see the ethnic origin of individuals in any official surveys in Turkey due to

legal prohibition. That is one of the main reasons for lack of ethnic discrimination research, and that is also why we choose to employ a field survey.

The variable of interest is ethnicity in our study. However, the survey asks the participants not their ethnicity but their mother tongue, which is a commonly-used proxy for the ethnic background of an individual. Using the mother tongue information, we classify the households whose native language is Turkish as 'Turks', while those speaking a dialect of Kurdish - i.e., Kurmanci, Sorani, Kelhuri, or Zazaish - as 'Kurds'.

In addition to the ethnicity, the survey includes question categories covering education, labor market outcomes, income, religious attainment, and migration. With this survey, we will try to summarize differences between ethnicities in terms of educational attainments and labor market outcomes.

5. Results

We start this section with the results we derived from the survey data and try to describe differences between Turks and Kurds in the labor market. Then, we present our findings from the correspondence audit and claim that there is evidence of ethnicity-based discrimination in the Turkish labor market.

5.1 Survey Results

We first look at the educational attainments of both groups (Figure 1) as the labor market outcomes are partially determined by education. While around 40 percent of the Kurds have no graduation, this ratio is only 12 percent for the Turks. For the rest of the educational attainment levels, the share of Turks is higher than the Kurds, and the gap is widening with the level of education. For instance, while the share of university graduates is only 3.6 percent for the Kurds, it is 10.8 percent for the Turks. In short, the educational attainments of the Kurds are significantly lower than the Turks.

Another factor that can affect the labor market outcomes of the individual is the location. According to Figure 2, most of the individuals are located at the urban areas however the share of Turks that are located in urban areas (83.11 percent) is higher than that of Kurds (72.56 percent). As urban areas provide better labor market opportunities, Kurds seem to be disadvantaged due to location.

In order to analyze the share of working population for both groups, we create a dummy variable that takes the value 1 if the individual is working and 0 otherwise and we present the graph in Figure 3. As expected, the share of working individuals is higher for Turks than Kurds (36.3 percent vs. 30 percent).

In order to further analyze the labor market status of the Kurds and the Turks, we plot the share of public-private sector workers for both ethnicities in Figure 4. As it can be seen from the figure, the share of the Turkish and Kurdish public sector workers, 14.5 percent and 12.4 percent respectively, are quite close to each other. This result might reflect the fact that there exists no hiring discrimination against Kurds in the public sector.

We also investigate the sectoral distribution of the workers by ethnicity in Figure 5. According to the figure, while the share of the Turks is higher in manufacturing and service sector, the share of

the Kurds is higher in agriculture and construction. This can be a mere reflection of the fact that Kurds are lower educated and less skilled and therefore mainly located in the low skilled sectors.

The effect of Kurds being low skilled is also evident from Figure 6, which presents the distribution of workers by the employment status for different ethnicities. Among the wage earners, Kurds are mainly employed as casual workers and self-employed. Moreover, the ratio of unpaid family workers is also quite high for the Kurds (7.6 percent) compared to the Turks (1.8 percent).

We also investigate the unemployment dynamics among the Kurdish and the Turkish populations. The unemployment rate of the Kurdish individuals in our sample is 31.6 percent which is well above the unemployment rate of the Turkish individuals (18.4 percent). The difference between the unemployment rates might arise from the differences in education or due to discrimination. To control for the education effect, we divide the sample into two education groups, namely below high school and high school and above. Then, we calculate the unemployment rates for these education groups for each ethnicity. For the first education group, the unemployment rate of the Kurds is 28.76 percent, and that of Turks is 19.34 percent. For the second education group, the rates are 40.02 percent and

17.32 percent respectively. Compared to the whole sample, more educated Kurds and less educated Turks have higher unemployment rates. Kurds, particularly more educated Kurds, have a significantly higher unemployment rate compared to Turks, which could reflect the discrimination against the Kurds.

The survey asks the unemployed individuals "for how long they have been looking for a job" and the results are reported in months. We observe that the duration of unemployment of the Kurds is significantly higher than the unemployment duration of Turks as we show in Figure 7. When we focus on two above mentioned education groups separately, results do not alter, and Kurds still have higher unemployment duration for both education groups (Figure 8). Moreover, while the higher educated Turks have a lower unemployment duration, that is not the case for the higher educated Kurds. To sum up, Kurds do not only have a higher unemployment rate, but also they are unemployed for a longer period of time.

Finally, we employ regression analyses to investigate the effects of socio-economic and demographic characteristics on the employment probabilities of the individuals for both ethnic groups. We run a probit model with a dependent variable that takes the value 1 if the individual is employed and 0 otherwise. The independent variables used in the model are the gender, educational attainment, age, marital status, urban-rural settlement of the individuals. We also control for the region fixed effects. We first run this model by adding an ethnicity dummy that takes the value 1 for Kurds and 0 for Turks, and we try to get a clue for existence of discrimination between ethnicities. Then, we run the same model for the Kurds and the Turks separately to see how the effects of the explanatory variables differ between ethnicities on the probability of employment. Table 1 presents the estimation results.

Our findings suggest that the probability of being employed is higher for the Turks compared to the Kurds. Females have a lower probability of employment, but Kurdish women have a slightly higher probability of being employed than the Turkish women. This result can arise due to the fact that Kurds are located in less-skilled jobs and mainly work as unpaid family workers. The same

reasoning can explain the insignificant coefficients of education for the Kurdish sample. On the other hand, having a high school or university degree increases the probability of being employed for Turks. The probability of being employed exhibits a hump-shape in age for both ethnic groups but it peaks later for the Kurds. Being married has a positive effect on the probability of being employed for both ethnic groups, but the probability is higher for the Kurds. While the household size has a positive effect on the probability of being employed for the Turks, it does not have statistically significant effect for the Kurds. Living in a rural area seems to have nothing to do with the employment for both groups.

As a result, there are remarkable differences between Turks and Kurds in the labor market, from unemployment rates to unemployment durations to covariates correlated with the employment probabilities. As we stated clearly earlier, it is not possible to interpret these findings directly as labor market discrimination, but the survey data suggests there is a room for clarification about the underlying results of these findings. In the following chapter, we will try to identify one of the possible channels contributing the different labor market outcomes of the Kurds and the Turks via data from a field experiment.

5.2 Correspondence Audit Results

As we stated in the methodology section, we will present three different discrimination measures in this chapter, namely listings, screenings, and callbacks. The listing variable takes the value of 1 if our fictitious application is filtered and listed together with other applicants in a list format, and 0 if the application was not listed by the employer. The screening variable takes the value of 1 if the applicant's resume is accessed by the employer and 0 otherwise. Finally, the callback measure takes the value of 1 if the prospective employer calls the phone of the fictitious applicant and requests for an interview.

In Table 2, Table 3, and Table 4 we summarize these measures by the applicant names and the ethnic group of the applicant. It is easy to observe in Table 2 that the average listing rates are quite close to each other among the applicant groups. On average, our fictitious resumes are listed around 65 percent of the time, which is much higher than the standard callback ratios observed in the literature. Via the listing measure, we are able to conclude that the prospective employers do not discriminate at this stage of the hiring process. We believe this is an expected result of the application methodology and the job application portal we have used. Employers can filter applicants by education, experience, language and other resume characteristics on the job application portal. After filtering the applicants, they can click the list button and see a filtered list of resumes. Given all our applicants have the same characteristics, we would expect them to survive the filtering process all together or none does.

The only filter that affects our fictitious applicants heterogeneously is the gender since half of our applicants are males and half are females. However, we observe that there is no difference in the listing measure among genders, which is consistent with the results of Balkan et al. (2017).

When we move to the screening measure, which is the ratio of resumes accessed and possibly read by the employers, we saw that the resume access rate is much lower than the listing rates for all applicant groups and names. Resume access rate goes as high as 20 percent and as low as 2 percent for different applicant names. However, on average 16 percent of all resumes are accessed and possibly read by the employers. There is no difference across ethnicities in resume screenings.

This observation together with listing measure potentially means employers are reading random resumes among the ones they access without paying much attention to applicant names. Hence, we do not observe any discrimination at this stage of hiring either.

On the other hand, the picture changes radically when we focus on our last measure, namely the callback rates, which is presented in Table 4. When we consider the male applicants, Turkish and Kurdish males receive 5 percent callback on average. That means 1 in every 20 jobs we applied for produces an interview request for the male applicants, regardless of the ethnicity. However, the difference in callback rates is stark for the females. For every callback a Kurdish female gets, the Turkish female gets 2.66 callbacks. Hence, to achieve an equal amount of callbacks, Kurdish females need to apply approximately 3 times more jobs than their Turkish counterparts.

These findings are supported by the net discrimination measures produced in Table 5. To calculate the net discrimination, we first find the applications in which the Kurdish and Turkish applicants are treated equally. An equal treatment can be positive communication for both applicants or no communication for both. It is easy to observe that around 90 percent of the time our fictitious applicants are treated equally in our dataset. However, 7.5 percent of the time only the Turkish females get a callback from the employer whereas 2.4 percent of the time only the Kurdish female gets a callback. That means, there exists net discrimination against Kurdish females in the callbacks. Similarly, 6 percent of the time only the Turkish male gets a callback whereas 5.4 percent of the time only the Kurdish male gets a callback. Hence, the net discrimination against Kurdish males is approximately zero in our dataset.

These findings are in line with what we observe in the survey data in the previous section, at least for the Kurdish women. A lower callback rate means a need for a higher number of resume submission. That means a minority applicant needs to spend more time in the job search for a given search effort level. Hence, unemployment spells might become longer for the minority applicants as we showed with the survey data. That might also translate into a higher unemployment rate as the survey data suggests. We might also observe a lower employment rate for minority groups not only because higher unemployment but also due to the discouraging effect of fruitless job search efforts. At this point, it is important to remember, our fictitious applicants in the correspondence audit are comparable to the higher education group in the survey.

Another important observation we derive from our communication measures is the following. Resume listing and screening rates between the Kurdish males and females are found to be very similar although the callback rates are significantly lower for the Kurdish females. That can have two possible explanations. The first and most obvious one, an average recruiter is not as informed as our average survey respondent, and they had a hard time identifying the gender of an applicant before accessing resume and reading the gender information. Alternatively, they might have a different response to resume characteristics of female and male applicants. Since the resume access and callbacks are not an exact match for male applicants either, both explanations are plausible and might explain the some of the difference between the callback and resume access rates.

Note that we assigned similar high schools and colleges to our applicants. That means, they spent almost the last ten years of their lives in Istanbul and several other big cities of Turkey, mostly Western. Hence, the employers have no reason to expect cultural differences or language ability differences from our applicants.

In Table 6 to Table 8, we run regressions on our discrimination measures to make inference on the statistical significance of our results. We first find that the probability of getting a callback is 2.6 percent lower for Kurdish applicants on average when we pool male and female applicants and treat the Turkish sample as the control group. On the other hand, we observe no statistical difference in listings and screenings among different ethnicities in line with our previous findings[4].

When we divide the sample into male and female applicants in Table 7 and Table 8, we see that the differences in callbacks are due to the Kurdish females and the probability of getting a callback is 5 percent lower for the Kurdish females compare to the Turkish females. Given the callback rates are between 0-10 percent, it is easy to see that this an economically significant reduction in the callbacks.

5.2.1 Callbacks with respect to the applicant pool size

One additional benefit of the job application portal we used for this study is the possibility of observing competition for the vacancy. We can see how many applicants were applying for each vacancy. To use this observation, we followed the jobs we applied for to the closing date of the vacancy and observe the number of total applicants. The applicant number went as high as 50,000 and as low as 100. To make sense of this data, we divide the sample into two by defining 500 applications as the cutoff value[5].

As we can see in Table 9, the differential treatment of the Kurdish applicants in callbacks are due to vacancies with less than 500 applicants. The probability of getting a callback is 4.3 percent lower for a Kurdish applicant compares to a Turkish applicant if the vacancy has less than 500 applications. However, the differential treatment disappears if the number of applicants is higher than 500 cutoff. That observation is especially important given the number of callbacks overall are higher when the total number of applicants is lower. Although around 40 percent of all vacancies have less than 500 applications in our dataset, around 60 percent of all callbacks are due to those vacancies. That means the discrimination against Kurdish minority is higher when we focus on the vacancies which are producing most of the callbacks.

When we bring gender aspect into the picture, we observe that the differential treatment is not significant for the male applicants. Table 10 shows that although the coefficient of the ethnicity is ten times higher in less popular vacancies compare to more popular ones, none of the coefficients are statistically significant for the males. That means the differential treatment of callbacks is due to female applicants. Column 3 and 4 in Table 10 shows that probability of callback is 7.5 lower for a Kurdish female if the vacancy has less than 500 applicants and 2.8 lower if the vacancy has more than 500 applicants. Hence, the discrimination in callbacks is much stronger in the vacancies producing most of the callbacks. This observation is important due to two reasons. First and foremost, it is not true that firms with more options are discriminating against the minority candidates. On the contrary, more popular vacancies do not contribute to the callback discrimination. Second, since less popular vacancies are the main source of the interviews for our candidates, the hiring discrimination is worse than what the aggregate numbers suggest.

[4] Since our dependent variable is binary, we also carried probit estimations. Neither the coefficients nor the inference is different when we run probit estimates. Therefore, we choose to present the linear probability estimates for the ease of interpretation.
[5] Defining similar cutoff values do not alter the results significantly. Hence, we choose to present a single cutoff value for the sake of brevity.

5.2.2 Callbacks with respect to the aggregate sectors

In addition to the number of total applicants, we can also follow the sectors of the firms, which are posted with the vacancies. To use this information, we collapsed sectors into two: 1) manufacturing and other production activities, 2) services. Table 11 and Table 12 demonstrate callbacks with respect to manufacturing and services respectively. Our results suggest the negative treatment of Kurdish applicants is slightly worse in the manufacturing sector than the services.

First, the Kurdish males are not treated differently than the Turkish males in either services or manufacturing sectors. Hence, the equality of callbacks is not sector specific for the male applicants. However, the probability of callback for a Kurdish woman is 6 percent lower than that of a Turkish woman in manufacturing and 4.5 percent lower in services. Although the difference does not seem much, it is important to remember average callback rate is around 6 percent in total. That means the discrimination against Kurdish females in the hiring stage is stronger in the traditionally better-paying sector, namely manufacturing. Going back to our survey results, this might be one of the underlying reasons behind the differences in the labor market between ethnicities.

5.2.3 Bringing different measures together

Finally, we would like to conclude this chapter by looking into the correlations among our discrimination measures. Table 13 summarizes the correlations of the listing, screening and callback measures for different subgroups in our sample. When we compare the Turkish sample with the Kurdish sample, we observe that correlations of callbacks with both listing and screening measures are lower for the Kurdish applicants. Hence, the equal number of listings and screenings do not produce as many callbacks for the Kurdish applicants as the Turkish ones.

In line with our estimations, the difference in correlations is much bigger for the female applicants. The correlation between resume screening and the callbacks is the lowest for the Kurdish females. This observation supports the idea that the discrimination against Kurdish minority occurs at the callback stage because an equal exposure of resumes does not translate into a similar rate of callbacks for the Kurdish females.

In addition to the correlations among the correspondence audit measures, the survey results align quite well with the correspondence results for the females. However, the differences in the labor market outcomes of the Kurdish males are not reflected in the correspondence audit findings. There can be two distinct explanations for this observation. First and the foremost, the employers might be discriminating against the Kurdish females but not the Kurdish males. This explains the observed differences in the data easily but might not be the most plausible explanation. If the employers have a distaste for the Kurdish minority, we should observe a similar treatment of the minority males and females, which is obviously not the case. The second explanation is the reverse one, and it seems more plausible in this set-up. If the Turkish females are positively discriminated in the Turkish labor market against all groups, we might observe these results. Given the callback rates of the Kurdish females, the Kurdish males, and the Turkish males are quite similar; we can argue that Turkish females are treated better in the Turkish labor market. However, considering the Turkish females are the natural control group for the Kurdish females, these explanations are observationally equivalent and are hard to disentangle.

6. Conclusion

Turkey is facing an ethnic conflict for an extended period, and it might be possible to observe the effects of this conflict in the Turkish labor market in the form of discrimination against the minority group. In this study, we conducted a correspondence audit study to identify ethnic discrimination in the Turkish labor market. Moreover, we employed a survey data to identify further differences between the ethnic groups in terms of the labor market outcomes. We find that there is no discrimination against Kurds in the passive communication stage of the hiring process. The ratio of resume listings and resume screenings are almost identical for the Kurdish and the Turkish applicants. Moreover, there is no statistical difference in the callbacks that the Kurdish males and the Turkish males receive. Hence, we did not find any sign of discrimination against the Kurdish males in the market. On the other hand, the Kurdish females need to send 2.5 resumes for each resume is sent by a Turkish female to get the same number of callbacks. On top of that, the differential treatment in callbacks is stronger for the vacancies with fewer applicants on the contrary of the existing literature. Additionally, we show that the difference in callbacks is higher in the manufacturing sector than the services. These additional observations suggest the hiring stage discrimination against Kurdish females might be an important driver of the later labor market inequalities between ethnicities. Survey data also support our experimental findings. We show that the later stage labor market outcomes such as employment, unemployment, and duration measures are worse for the Kurdish population than the Turkish population. A higher unemployment rate and a lower employment rate together with longer unemployment spells are defining features of the labor market for the minority ethnicity in Turkey. Hence, we conclude that there is evidence supporting ethnicity-based discrimination against the Kurds in the Turkish labor market, especially for the females.

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Table 1: Determinants of Employment by Ethnicity

	All	Kurd	Turk
VARIABLES	**Employment**	**Employment**	**Employment**
Kurd	-0.12086*		
	(0.07194)		
female	-1.34458***	-1.20881***	-1.36883***
	(0.05679)	(0.15808)	(0.06132)
primary education	-0.05732	0.29470*	-0.13646
	(0.09365)	(0.16747)	(0.11682)
secondary education	0.12922	0.30891	0.07502
	(0.11117)	(0.28558)	(0.12951)
high school	0.23417**	0.08615	0.21559*
	(0.10773)	(0.23564)	(0.12867)
college or above	0.59216***	-0.44810	0.61872***
	(0.12087)	(0.35750)	(0.13842)
age	0.10076***	0.08216***	0.10555***
	(0.02159)	(0.03169)	(0.02468)
agesq	-0.00139***	-0.00110***	-0.00145***
	(0.00026)	(0.00036)	(0.00030)
married	0.35426***	0.44451*	0.32646***
	(0.08052)	(0.22950)	(0.08617)
household size	0.00493	-0.03563	0.03449*
	(0.01455)	(0.02377)	(0.01878)
rural	0.09163	0.00114	0.10467
	(0.07321)	(0.18726)	(0.08161)
Constant	-1.44346***	-1.17574**	-1.62595***
	(0.37449)	(0.59871)	(0.42138)
Observations	3,343	484	2,859
Region FE	Yes	Yes	Yes

The dependent variable is the employment status, =1 if employed. Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1 are corresponding significance levels.
Reference group: Turk, male, no graduation, single, living in urban area.

Table 2: Listings by Applicant Names

Turkish Males	Number of Applications	Number of Listings	Listing Rate
Tolga Aydın	50	37	0.74
Alper Mutlu	62	43	0.69
Zeki Keskin	41	28	0.68
Alican Doğan	44	29	0.66
Caner Yavuz	61	40	0.66
Alican Korkmaz	59	37	0.63
Melih Aslan	43	27	0.63
Vural Korkmaz	44	26	0.59
Orkun Koç	54	31	0.57
Vural Kaplan	37	21	0.57
Average	**50**	**32**	**0.64**
Turkish Females			
Berna Sarı	52	40	0.77
Gamze Durmaz	47	33	0.70
Gamze Şahin	37	26	0.70
Cansu Ateş	61	42	0.69
Sibel Çakır	39	26	0.67
Berna Avcı	58	37	0.64
Buket Ateş	64	41	0.64
Gözde Tekin	47	30	0.64
Melis Işık	49	31	0.63
Gözde Koç	41	20	0.49
Average	**50**	**33**	**0.66**
Kurdish Males			
Şirman Yücel	65	50	0.77
Berzan Özkan	39	29	0.74
Keke Yıldız	56	41	0.73
Şervan Demirci	46	33	0.72
Bervan Yılmaz	50	35	0.70
Botan Çetin	54	38	0.70
Şivan Aksoy	26	16	0.62
Rojen Yücel	50	30	0.60
Hogir Aksoy	55	28	0.51
Bahoz Doğan	54	27	0.50
Average	**50**	**33**	**0.66**
Kurdish Females			
Zilan Uysal	51	39	0.76
Rojgul Yıldız	41	29	0.71
Rojbin Avcı	45	30	0.67
Zerşin Doğan	56	37	0.66
Avbin Aydın	55	35	0.64
Zilda Aksoy	59	37	0.63
Roja Uysal	42	26	0.62
Zozan Yıldız	35	21	0.60
Rojda Aksoy	58	33	0.57
Rojder Keskin	53	30	0.57
Average	**50**	**32**	**0.64**

Table 3: Screenings by Applicant Names

Turkish Males	Number of Applications	Number of Screenings	Screening Rate
Vural Korkmaz	44	9	0.20
Zeki Keskin	41	8	0.20
Alican Doğan	44	8	0.18
Alican Korkmaz	59	10	0.17
Alper Mutlu	62	10	0.16
Vural Kaplan	37	6	0.16
Caner Yavuz	61	9	0.15
Tolga Aydın	50	7	0.14
Melih Aslan	43	5	0.12
Orkun Koç	54	4	0.07
Average	**50**	**8**	**0.16**
Turkish Females			
Gamze Şahin	37	10	0.27
Buket Ateş	64	15	0.23
Berna Sarı	52	11	0.21
Melis Işık	49	10	0.20
Cansu Ateş	61	11	0.18
Berna Avcı	58	9	0.16
Gözde Tekin	47	7	0.15
Gözde Koç	41	6	0.15
Sibel Çakır	39	2	0.05
Gamze Durmaz	47	1	0.02
Average	**50**	**8**	**0.16**
Kurdish Males			
Berzan Özkan	39	9	0.23
Keke Yıldız	56	10	0.18
Şirman Yücel	65	12	0.18
Botan Çetin	54	9	0.17
Şervan Demirci	46	7	0.15
Bervan Yılmaz	50	7	0.14
Hogir Aksoy	55	7	0.13
Şivan Aksoy	26	3	0.12
Rojen Yücel	50	5	0.10
Bahoz Doğan	54	4	0.07
Average	**50**	**7**	**0.15**
Kurdish Females			
Avbin Aydın	55	12	0.22
Rojbin Avcı	45	9	0.20
Zilda Aksoy	59	12	0.20
Zozan Yıldız	35	7	0.20
Rojder Keskin	53	10	0.19
Rojgul Yıldız	41	7	0.17
Zilan Uysal	51	7	0.14
Rojda Aksoy	58	7	0.12
Zerşin Doğan	56	6	0.11
Roja Uysal	42	3	0.07
Average	**50**	**8**	**0.16**

Table 4: Callbacks by Applicant Names

Turkish Males	Number of Applications	Number of Callbacks	Callback Rate
Vural Kaplan	37	6	0.16
Alican Korkmaz	59	9	0.15
Alican Doğan	44	4	0.09
Vural Korkmaz	44	2	0.05
Tolga Aydın	50	2	0.04
Alper Mutlu	62	1	0.02
Caner Yavuz	61	0	0.00
Melih Aslan	43	0	0.00
Orkun Koç	54	0	0.00
Zeki Keskin	41	0	0.00
Average	**50**	**2**	**0.05**
Turkish Females			
Cansu Ateş	61	12	0.20
Gözde Tekin	47	8	0.17
Gamze Durmaz	47	7	0.15
Melis Işık	49	5	0.10
Berna Avcı	58	3	0.05
Gözde Koç	41	2	0.05
Berna Sarı	52	2	0.04
Buket Ateş	64	2	0.03
Sibel Çakır	39	1	0.03
Gamze Şahin	37	0	0.00
Average	**50**	**4**	**0.08**
Kurdish Males			
Şervan Demirci	46	8	0.17
Hogir Aksoy	55	5	0.09
Keke Yıldız	56	4	0.07
Berzan Özkan	39	2	0.05
Şirman Yücel	65	3	0.05
Botan Çetin	54	1	0.02
Bahoz Doğan	54	0	0.00
Bervan Yılmaz	50	0	0.00
Rojen Yücel	50	0	0.00
Şivan Aksoy	26	0	0.00
Average	**50**	**2**	**0.05**
Kurdish Females			
Rojda Aksoy	58	7	0.12
Rojgul Yıldız	41	5	0.12
Rojder Keskin	53	3	0.06
Avbin Aydın	55	1	0.02
Zilan Uysal	51	1	0.02
Roja Uysal	42	0	0.00
Rojbin Avcı	45	0	0.00
Zerşin Doğan	56	0	0.00
Zilda Aksoy	59	0	0.00
Zozan Yıldız	35	0	0.00
Average	**50**	**2**	**0.03**

Table 5: Net Discrimination

VARIABLES	Listing	Screening	Callback
Kurdish Men			
Equal Treatment	87.68	85.86	91.52
Turkish Men Favored	4.85	7.07	6.06
Kurdish Men Favored	7.47	7.07	5.42
Net Discrimination	-2.62	0.00	0.64
Kurdish Women*			
Equal Treatment	88.08	87.07	90.10
Turkish Women Favored	7.07	6.87	7.47
Kurdish Women Favored	4.85	6.06	2.42
Net Discrimination	2.22	0.81	5.05

*The reference group is Turkish females for Kurdish females.

Table 6: Discrimination Measures - Turkish vs Kurdish Applicants

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	**Listings**	**Listings**	**Screenings**	**Screenings**	**Callbacks**	**Callbacks**
Kurdish	-0.00101	-0.00101	-0.00505	-0.00505	-0.0263***	-0.0263***
	(0.0214)	(0.00986)	(0.0164)	(0.0110)	(0.0101)	(0.00920)
Female	-0.00303	-0.00303	0.0131	0.0131	0.0121	0.0121
	(0.0214)	(0.0108)	(0.0164)	(0.0117)	(0.0101)	(0.00947)
Constant	0.653***	0.653***	0.153***	0.153***	0.0606***	0.0606***
	(0.0186)	(0.0213)	(0.0141)	(0.0152)	(0.00851)	(0.00979)
Observations	1,980	1,980	1,980	1,980	1,980	1,980

Robust standard errors are reported in parentheses for columns 1, 3, 5.
Standard errors are clustered by vacancy for columns 2, 4, 6. *** p<0.01, ** p<0.05, * p<0.1

Table 8: Discrimination Measures - Turkish Females vs Kurdish Females

VARIABLES	(1) Listings	(2) Listings	(3) Screenings	(4) Screenings	(5) Callbacks	(6) Callbacks
Kurdish	-0.0182	-0.0182	-0.00404	-0.00404	-0.0505***	-0.0505***
	(0.0304)	(0.0141)	(0.0235)	(0.0162)	(0.0150)	(0.0140)
Constant	0.659***	0.659***	0.166***	0.166***	0.0848***	0.0848***
	(0.0213)	(0.0213)	(0.0167)	(0.0167)	(0.0125)	(0.0125)
Observations	990	990	990	990	990	990

Robust standard errors are reported in parentheses for columns 1, 3, 5.
Standard errors are clustered by vacancy for columns 2, 4, 6. *** p<0.01, ** p<0.05, * p<0.1

Table 9: Callbacks by Applicant Pool Size - Turkish vs Kurdish Applicants

VARIABLES	(1) <500 applicants	(2) <500 applicants	(3) >500 applicants	(4) >500 applicants
Kurdish	-0.0427**	-0.0427***	-0.0127	-0.0127
	(0.0179)	(0.0163)	(0.0119)	(0.0107)
Female	0.0377**	0.0377**	-0.00543	-0.00543
	(0.0179)	(0.0171)	(0.0119)	(0.0107)
Constant	0.0716***	0.0716***	0.0498***	0.0498***
	(0.0146)	(0.0161)	(0.0103)	(0.0125)
Observations	796	796	1,104	1,104

Robust standard errors are reported in parentheses for columns 1, 3.
Standard errors are clustered by vacancy for columns 2, 4.
*** p<0.01, ** p<0.05, * p<0.1

Table 10: Callbacks by Applicant Pool Size and Gender

VARIABLES	(1) <500, Males	(2) >500, Males	(3) <500, Females	(4) >500, Females
Kurdish	-0.0101	-0.00941	-0.0754***	-0.0282**
	(0.0189)	(0.0129)	(0.0266)	(0.0136)
Constant	0.0553***	0.0471***	0.126***	0.0565***
	(0.0163)	(0.0120)	(0.0236)	(0.0128)
Observations	398	850	398	850

Standard errors are clustered by vacancy. *** p<0.01, ** p<0.05, * p<0.1

Table 11: Callbacks by Sectors and Gender: Manufacturing and Other Production

	(1)	(2)	(3)
VARIABLES	**Aggregate**	**Males**	**Females**
Kurdish	-0.0327**	-0.00595	-0.0595**
	(0.0165)	(0.0179)	(0.0235)
Female	0.0149		
	(0.0176)		
Constant	0.0610***	0.0476***	0.0893***
	(0.0170)	(0.0165)	(0.0221)
Observations	672	336	336

Standard errors are clustered by vacancy. *** p<0.01, ** p<0.05, * p<0.1

Table 12: Callbacks by Sectors and Gender: Services

	(1)	(2)	(3)
VARIABLES	**Aggregate**	**Males**	**Females**
Kurdish	-0.0229**	0.0000	-0.0459***
	(0.0111)	(0.0144)	(0.0174)
Female	0.0107		
	(0.0111)		
Constant	0.0604***	0.0489***	0.0826***
	(0.0120)	(0.0120)	(0.0153)
Observations	1,308	654	654

Standard errors are clustered by vacancy. *** p<0.01, ** p<0.05, * p<0.1

Table 13: Correlations between Discrimination Measures

	Listings	Screenings	Callbacks
Turkish Sample			
Listings	1.00		
Screenings	0.24	1.00	
Callbacks	0.17	0.50	1.00
Kurdish Sample			
Listings	1.00		
Screenings	0.23	1.00	
Callbacks	0.14	0.44	1.00
Turkish Male			
Listings	1.00		
Screenings	0.26	1.00	
Callbacks	0.17	0.53	1.00
Turkish Female			
Listings	1.00		
Screenings	0.22	1.00	
Callbacks	0.17	0.49	1.00
Kurdish Male			
Listings	1.00		
Screenings	0.21	1.00	
Callbacks	0.14	0.50	1.00
Kurdish Female			
Listings	1.00		
Screenings	0.25	1.00	
Callbacks	0.14	0.37	1.00

Figure 1: Educational Attainment by Ethnicity

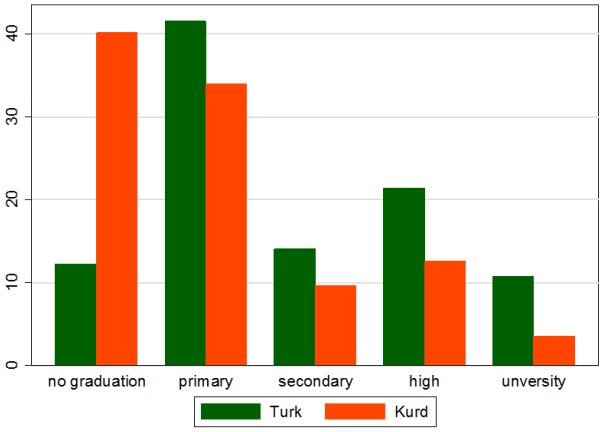


Figure 2: Location by Ethnicity

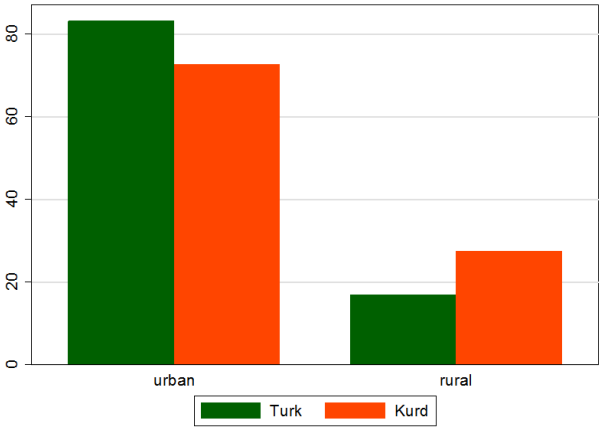


Figure 3: Employment by Ethnicity

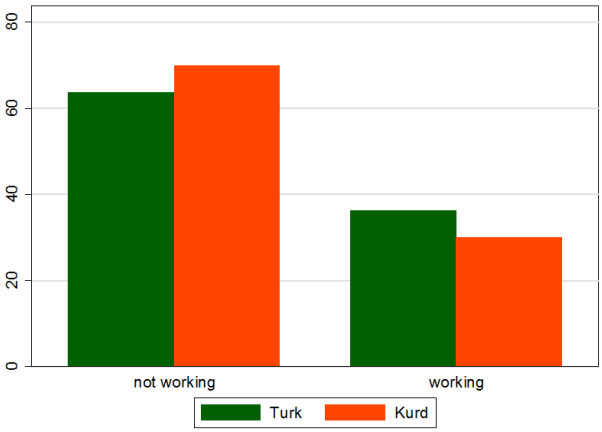


Figure 4: Share of Public-Private Workers by Ethnicity

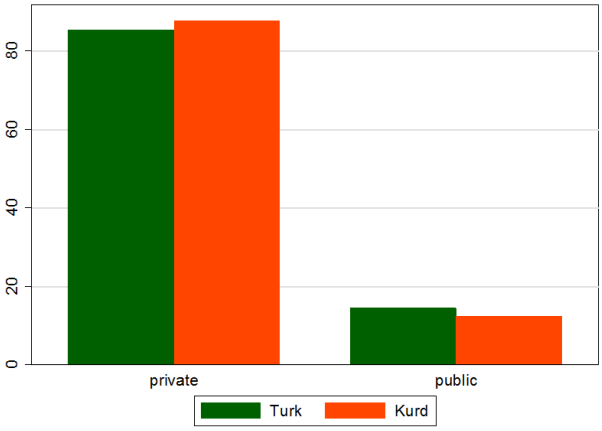


Figure 5: Sectoral Distribution by Ethnicity

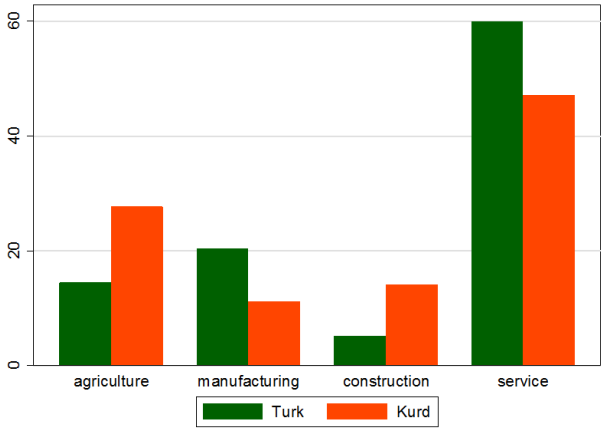


Figure 6: Employment Status by Ethnicity

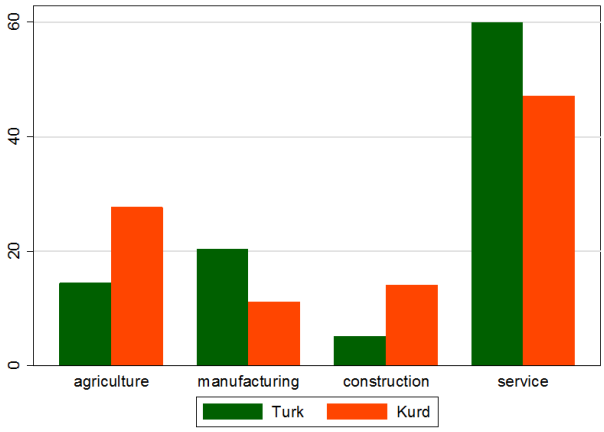
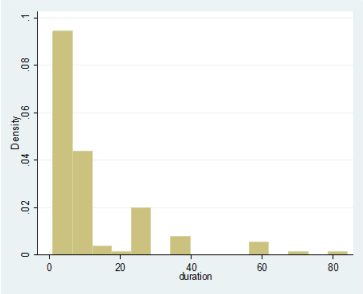
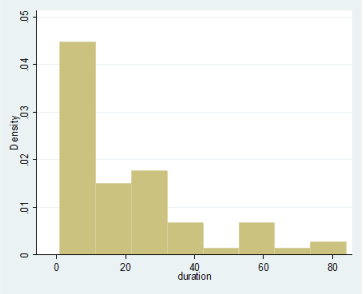


Figure 7: Duration of Unemployment by Ethnicity

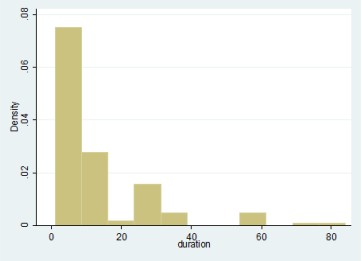


(a) Turks

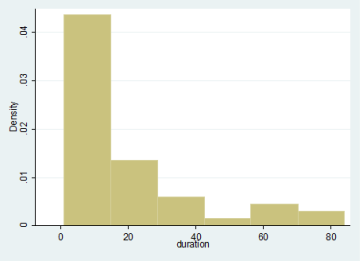


(b) Kurds

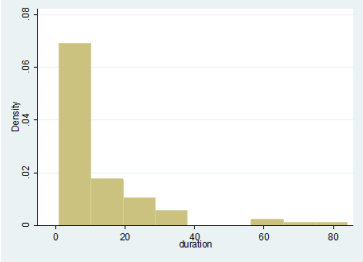
Figure 8: Duration of Unemployment by Ethnicity and Education



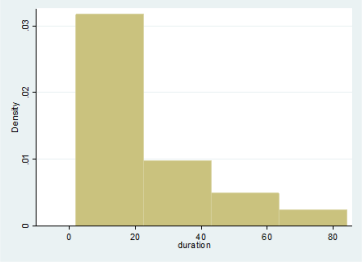
(a) Below High School Turks



(b) Below High School Kurds



(c) Above High School Turks



(d) Above High School Kurds

A. List of Neutral Surnames

- Yılmaz
- Demir
- Çetin
- Korkmaz
- Kara
- Aslan
- Yavuz
- Aydın
- Demirci
- Mutlu
- Durmaz
- Kılıç
- Doğan
- Yıldırım
- Uysal
- Koç
- Kurt
- Özkan
- Şimşek
- Keskin
- Yıldız
- Kaya
- Şahin
- Yücel
- Çakır
- Kaplan
- Avcı
- Işık
- Ateş
- Aksoy
- Taş
- Sarı
- Tekin

B. List of Universities

- Uludağ University
- Çukurova University
- Dokuz Eylül University
- Akdeniz University
- Anadolu University
- Selçuk University
- 19 Mayıs University
- Ege University
- Gazi University
- Pamukkale University